

WEATHER OF NORTH AMERICA AND ADJACENT OCEANS.

NORTH ATLANTIC OCEAN.

By F. A. YOUNG.

The average pressure for the month as determined at different land stations on the coast and islands of the North Atlantic Ocean did not differ materially from the normal. The following figures show the average pressure at 8 a. m., 75th meridian time, with approximate departures, at a number of selected stations. The barometer readings are in inches, and the normals were taken from the Pilot Chart.

St. Johns, Newfoundland, average 29.90, departure -0.08. Nantucket, 29.99, ± 0.00 . Hatteras, 30.01, -0.03. Key West, 30.05, +0.07. New Orleans, 30.03, +0.07. Swan Island, 29.92, ± 0.00 . Turks Island, 30.10, +0.10. Bermuda, 30.15, +0.06. Horta, Azores, 30.20, -0.01. Lerwick, Shetland Islands, 29.70, -0.10. Valentia, Ireland, 29.91, -0.02. London, 29.95, -0.04.

The number of days on which winds of gale force were reported was considerably greater than usual over the eastern section of the steamer lanes. They were recorded on from 5 to 7 days in the four 5-degree squares between the 45th and 50th parallels, north latitude, and the 5th and 25th meridians, west longitude, and on 4 days in each of the three squares immediately to the eastward. In marked contrast to these conditions were those that prevailed over the region west of the 55th meridian, where gales were not reported on more than one day in any 5-degree square, while south of the 35th parallel moderate weather apparently prevailed during the entire month, with exception of the disturbance of the 24th and 25th in the Caribbean Sea that will be referred to later.

Taking the ocean as a whole, fog was not as prevalent as in July, although in the vicinity of Nantucket it was observed on 20 days, and on 10 days in the square between latitudes 45° and 50° N., longitude, 10° and 15° W. Over the remainder of the steamer lanes and off the coast of northern Europe the number of days on which fog was recorded was not far from the normal.

The month began with a moderate depression over the region between the 25th meridian and the European coast that afterwards developed into one of the most severe disturbances of the month, as shown by Charts VIII to XI for the period from the 2d to 5th, inclusive.

On the 2d the depression in the vicinity of Ireland resulted in exceptionally heavy winds over a limited area, while moderate weather prevailed over the remainder of the ocean. Storm log:

British S. S. *Sutton Hall*:

Gale began on the 2d, wind SSW. Lowest barometer 29.40 inches at 8 a. m. on the 2d, wind SSW., 9, in latitude 52° 6' N., longitude 5° 54' W. End of gale on the 3d, wind WSW. Highest force of wind 9, SSW; shifts SSW.-W.

On the 3d there appeared a well-developed Low central near latitude 47° N., longitude 30° W., that moved slowly eastward accompanied by strong gales. Storm logs:

British S. S. *Bolivian*:

Gale began on the 3d, wind SE. Lowest barometer 29.24 inches on the 3d, wind WSW., 11, in latitude 47° 30' N., longitude 27° 50' W. End at 4 p. m. on the 4th. Highest force of wind 11. Shifts SW.-W.-WNW.

British S. S. *Asian*:

Gale began on the 3d, wind ESE. Lowest barometer 29.53 inches at 7 p. m. on the 4th, wind SSW., 8, in latitude 50° 27' N., longitude 18° 47' W. End on the 5th, wind WNW. Highest force of wind, 9; shifts, S.-SSW.-SW.

On the 3d the American tank steamer *Chester Sun* observed a waterspout in the Gulf of Mexico, as shown by following report.

August 3, about 5:35 a. m., in latitude 28° 34' N., longitude 91° 35' W., large waterspout and one smaller formed in the middle of a large nimbus cloud. Both parted in the center and disappeared as the breeze moved the cloud along.

From the 6th to the 13th, taking the ocean as a whole, the atmospheric conditions were comparatively sluggish, although during this period one or two moderate disturbances were indicated by reports received.

On the 7th the second waterspout of the season visited the Gulf of Mexico, as seen in following report from American S. S. *Hadnot*.

At 2:30 p. m. on the 7th, in latitude 23° 33' N., longitude 88° 36' W., observed a large waterspout about 6 miles to the northwestward and moving in that direction, followed by a heavy rain squall. Wind E. by N., force 3. Barometer 30.07 inches. Sea moderate. Temperature of air 83° F.; wet bulb 81° F.; sea water 84° F. Observer, C. De Stefano, 2d officer.

On the 14th Newfoundland was surrounded by a fairly well developed area of low pressure with winds of moderate gale force in the southerly and southeasterly quadrants; this Low moved rapidly eastward and on the 15th the center was near latitude 47° N., longitude 40° W. Storm log:

American S. S. *Eastern Star*:

Gale began on the 14th, wind S. Lowest barometer 29.99 inches at 2 p. m. on the 14th, wind S., 7, in latitude 44° 16' N., longitude 40° 30' W. End on the 15th, wind W. Highest force of wind 9, S.; shifts S.-SSW.-SW.

From the 16th to the 18th comparatively high pressure was the rule over the greater part of the ocean, although a depression accompanied by moderate winds surrounded the greater part of England; this moved slowly eastward, and on the 18th was off the Scandinavian coast. On the 19th a disturbance was central near latitude 40° N., longitude 45° W., and moderate gales were reported over the area between that point and the Bermudas. Storm log:

Italian S. S. *Milazzo*:

Gale began on the 18th, wind SW. Lowest barometer 30 inches at 8 a. m. on the 18th, wind SW., 7, in latitude 36° 01' N., longitude 56° 43' W. End on the 21st, wind W.; highest force of wind 8. At 8 a. m. on the 20th wind shifted from SW. to W.

By the 20th the center had reached a point near latitude 50° N., longitude 20° W., and on the 21st was off the east coast of Scotland. There appeared on the 22d two unusually deep depressions; the first over the Gulf of St. Lawrence and the second near the north coast of Scotland. The 8 a. m. 75th meridian time, barometric readings at Fathers Point, Quebec, and Lerwick, Shetland Islands, were 29.04 inches and 28.88 inches, respectively. A few vessels in the vicinity of the western Low, as well as in mid-ocean, rendered storm logs, while according to reports received, moderate weather prevailed along the greater part of the European coast. On the 23d the conditions were similar to those of the previous day, although both of the low areas had begun to fill in. Storm logs:

British S. S. *Kenbane Head*:

Gale began on the 22d, wind NW. Lowest barometer 28.83 inches at 11 a. m. on the 22d, wind NW., in latitude 48° 50' N., longitude 62° 40' W. End on the 23d, wind W. Highest force of wind 9, WNW.; shifts S.-NW.

British S. S. Wells City:

Gale began on the 22d, wind S. Lowest barometer 28.67 inches at 2 a. m. on the 23d, wind W., 8 in latitude 50° 18' N., longitude 25° 45' W. End on the 23d, wind NNW. Highest force of wind 9; shifts SW.-W.-NW.

On the 24th a disturbance appeared central near latitude 53° N., longitude 32 W.; it drifted slowly eastward, apparently gaining slightly in intensity and on the 27th was between the 20th meridian and the European coast. Storm log:

British S. S. Canadian Leader:

Gale began on the 23d, wind S. Lowest barometer 29.49 inches at 4 p. m. on the 24th, wind WSW., 7, in latitude 53° 48' N., longitude 31° 26' W. End on the 28th, wind WNW. Highest force of wind 9, WNW.; shifts SW.-WNW.

From the 24th to 26th one vessel encountered winds of gale force in the Caribbean Sea. Unfortunately this was the only report received from craft in that locality, and it is therefore difficult to determine accurately the nature and extent of this gale. Storm log:

American S. S. Winnebago—

Gale began on the 24th, wind NE. Lowest barometer 29.81 inches at 6 p. m. on the 24th, wind NE., in latitude 11° N., longitude 75° 55' W. End on the 26th, wind ENE., 8; steady from ENE. and NE.

On the 28th the third waterspout of the month was encountered in the Gulf of Mexico, as shown by the following report:

In latitude 27° 55' N., longitude 87° 40' W., observed a large waterspout about 5 miles to the northeastward and moving north. Wind SE., force 2. Barometer 30.11 inches. Sea smooth. Temperature of the air 85° F., water 84° F. American S. S. *Hadnot*, Capt. F. Gibson, Chief Officer V. H. Casey.

On the 28th still another area of low pressure appeared over the eastern section of the ocean, central near latitude 48° N., longitude 25° W.; on the 29th it was near the southern shore of Ireland, and heavy gales prevailed over the region between the 15th meridian and the European coast. Storm logs:

British S. S. Saxonia:

Gale began on the 28th, wind NW. Lowest barometer 29.36 inches at 8:25 p. m. on the 28th, wind N., 12, in latitude 48° 51' N., longitude 19° 11' W. End on the 29th, wind N. Highest force of wind 12, N. Between 8 and 8:25 p. m. on the 28th, wind fell to moderate breeze and veered to westerly from WSW. At 8:25 p. m. wind veered to NW., in a hurricane squall. At 8:33 wind veered to N. and blew with hurricane force until 9:40 p. m., when it eased to force 9.

American S. S. Westerner:

Gale began on the 28th, wind S. Lowest barometer 29.28 inches at 11 p. m. on the 28th, wind S., 7, in latitude 48° 08' N., longitude 11° 52' W. End on the 29th, wind NW. Highest force of wind 12, NW.; shifts WSW.-W.

American S. S. Effna:

Gale began on the 27th, wind WNW. Lowest barometer 29.64 inches at 4 a. m. on the 29th, wind WSW., 8, in latitude 46° 35' N., longitude 12 W. End on the 29th, wind NNW. Highest force of wind 10, NNW.; shifts SSW.-WSW.-NW.

This disturbance moved rapidly northeastward and on the 30th was apparently over the North Sea, although, as during the last two days of the month no reports were received from vessels in these waters, it was necessary to depend on observations from adjacent land stations in order to determine approximately its position and character.

NORTH PACIFIC OCEAN.

By WILLIS E. HURD.

The greater part of the North Pacific Ocean was comparatively quiescent during August, and aside from the tropical storms of the Far East and one hurricane to the westward of the Hawaiian Islands, few disturbances of consequence were reported to have occurred.

Over the eastern part of the ocean pressure for the month was close to the normal. At Dutch Harbor the average of the p. m. observations (29 days) was 29.85 inches as compared with the normal of 29.88. This represented a net decline in pressure from that of the preceding month of July of 0.31 inch. The highest reading, 30.34 inch, was recorded on the 13th; the lowest, 29.32, on the 30th. At Midway Island the daily departures were unimportant, the absolute range for the month, considering p. m. observations only, being 0.16 inch. The highest reading was 30.12, on the 7th and 8th; the lowest 29.96, on the 23d. Average for the month 30.05 inches; normal, 30.06 inches. Pressure at Honolulu was also featureless, the absolute range there for the month being only 0.19 inch. The highest reading 30.06, occurred on the 25th; the lowest, 29.87, on the 18th. Average for the month, p. m. observations, 30.00 inches, normal, 29.99 inches.

Low pressure persisted throughout the month over some portion of the Aleutian area, but the conditions were those of summer, and no gale of force higher than 7 was reported. The only accession to the Aleutian low this month seems to have been a depression which originated about midway between Honolulu and San Francisco on the 13th. The depression deepened slightly on the 14th and moved slowly toward the Gulf of Alaska, emerging from the area usually occupied by the North Pacific high about the 21st. It seems not to have been accompanied by gales.

The trades prevailed in the Hawaiian area, with winds generally from the east at Honolulu. The maximum velocity at this point was 30 miles, from the east, on the 28th. There was much cloudy weather, the percentage of sunshine being the lowest in the 19 years of record.

The one feature of unusual interest in the weather conditions over west longitudes was the intense tropical cyclone which occurred on the 20th to 22d of the month between Hawaii and Midway Island. The storm is discussed elsewhere in this issue of the REVIEW under the title of "A tropical storm west of Hawaii," by Mr. Thomas A. Blair. The only additional information concerning the disturbance is to be found in the following report submitted by Third Officer H. E. Wollaston of the American S. S. *President Lincoln*, Capt. Ryland Drennan, westward bound:

Latitude and longitude of beginning, 24° 20' N., 163° 55' W.
Latitude and longitude of lowest bar., 25° 05' N., 165° 20' W.
Latitude and longitude of end, 25° 50' N., 167° 10' W.

Date and time.	Wind.	Barometer.	Air.	Sea.
Aug. 21:				
8:00 a. m.	SE. 7	29.96	79	77
9:00 a. m.	SE. 7	90	79	78
10:00 a. m.	SE. 7	85	79	78
11:00 a. m.	SE. 7-8	80	79	78
12:00 a. m.	SE. 8	75	79	78

8-12. Overcast, with heavy rain. Rough southeasterly sea and heavy swell.

Date and time.	Wind.	Barometer.	Air.	Sea.
Aug. 21:				
1:00 p. m.	SE. 9	29.58	78	77
1:30 p. m.	SE. 10	42	77	76
2:00 p. m.	SE. 10	34	77	76
2:30 p. m.	ESE. 11	20	77	76
3:00 p. m.	E. 12	29.00	77	76
3:15 p. m.	ENE. 12	28.80	76	76
3:30 p. m.	NE. 12-12	85	76	76
4:00 p. m.	NE. 12	82	76	76

12-4. Squally weather; wind, hurricane force, with frequent lulls. Heavy, continuous rain and mountainous seas throughout watch.